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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Walter Niederstaetter

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PROPAT, L.L.C.

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EXAMINER

WOOD, ELLEN S

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,381	Applicant(s) NIEDERSTAETTER ET AL.	
	Examiner ELLEN S. WOOD	Art Unit 1782	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6-10,12-15,18,19 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-4, 6-10, 12-15, 18-19, and 21-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/06/2011 has been entered.

Claim Objections

2. Claim 26 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The applicant has added new claim 26 but it appears as though the remainder of the claim was not entered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 3-4, 6-10, 12-19, and 21-26 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s)

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contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The applicant previously amended the independent claims 1 and 25 to include the limitation "a water vapor permeability of 20 to 1000 g/m²." The specification states that the water vapor permeability is 5 to 1000 g/m², preferably 20 to 400 g/m², particularly preferably 50 to 200 g/m² (pg. 7 lines 1-3). Thus, the claim fails to comply with the written description requirement.

5. In regards to claim 3, the applicant previously amended the claim to state "wherein said shirred food casing has a sigma-5 value of to 10/10 N/mm²." The specification states that the sigma-5 value is below 20/20 N/mm², particularly preferably in the range from 2/2 to 10/10 N/mm² (pg. 4 lines 30-32). Thus, the claim fails to comply with the written description requirement.

6. Claim 22 recites the limitation "individual shirred pleats" in lines 5-6. The claim states that food casing is shirred. However, that does not inherently mean that the food casing has individual shirred pleats. Thus, there is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claim 22 is rejected under 35 U.S.C. 102(b) as being anticipated by Huhn et al. (US 4,391,302, hereinafter "Huhn").

In regards to claim 22, Huhn discloses a shirred coupled tubular casing that comprises synthetic polymers (col. 11 lines 9-30). The outer surface used a corona discharge treatment (col. 6 lines 44-62). The outer surface tension was 47 (col. 8 lines 35-55). It would naturally follow that the shirred casing extends in the longitudinal direction by no more than 10% when it is stored on a smooth, planar support, without packaging at room temperature and 60% relative humidity and increased adhesion of the individual shirred pleats to on another.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 3-4, 8-10, 12-13, 15, 18, 19, 21, and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vicik (us 5,698,279, hereinafter "Vicik") in view of Ahlgren et al. (US 6,203,750, hereinafter "Ahlgren").

In regards to claim 1, Vicik discloses a tubular biaxially stretched, heat shrinkable multilayer film food casings comprising inner and outer polyamide layers on either side

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of a core layer (abstract). The inner layer comprises a polyamide, the core comprises at least 60% by weight of one or more ethylene polymers having at least one functional moiety selected from the group of esters, anhydrides and carboxylic acids, and the outer layer comprises polyamide (col. 6 lines 59-64). The inner and outer layers comprises polyamide including nylon 6, nylon 66, nylon 6,12, nylon 6/12 copolymer nylon 6I/6T copolymer and nylon 6/66 copolymer (col. 10 lines 1-4). Advantageously, both the inner and outer layers may comprises the same copolyamide of nylon 6/66 (col. 10 lines 7-11). The core layer copolymers include ethylene/(meth)acrylic acid esters (col. 12 lines 20-27). The casing were shirred and placed on a core and stuffed using an automatic stuffing machine (col. 30 lines 1-6). Thus, the casing have sufficient intrinsic stability to be processed on a fully automatic stuffing machine. It would naturally flow that the casings would bend under the effect of their own weight by no more than 20%, because the casings are stuffed using a automatic stuffing machine without a separate support to hold the casings upright, thus the casings would not be able to be stuffed if the casings were bent more than 20%. The casing has a water vapor transmission rate of less than 75 g/m^2 (col. 14 lines 38-42). In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. The water vapor permeability is essentially imparted by the synthetic polymers (col. 8 lines 49-51).

Vicik is silent with regards to the casing being compressed in a ratio of 100:1 or more with overlapping shirring pleats.

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Ahlgren discloses a polyamide containing casing which are shirred for use as cook-in casings for the packaging of processed meat products, such as ham, turkey, bologna, etc (col. 1 lines 11-18). The film from which the casing is made contains a layer comprising at least two polyamides (col. 2 lines 9-11). The filing of various types of casing with viscous meat emulsion can be carried out by various automatic and semi-automatic processes (col. 14 lines 50-52). Apparatus and processes are well known in the food casing art for producing shirred, tubular casings (col. 14 lines 58-59). Such apparatus may be employed in the preparation of pleated (overlapping shirring pleats) and compressed tubular casing wherein the compression ratios are in the order of at least about 40:1 and up to about 100:1 or even greater (col. 14 lines 60-63). Using suitable food stuffing machinery, casing lengths can be stuffed with particulate or comminuted viscous material such as meat emulsion or the like, and thereafter formed into unit size lengths, using metal clips and/or heat seals (col. 14 lines 63-67).

Vicik is silent with regards to the compression ratio and the overlapping shirring pleats, therefore, it would have been necessary and thus obvious to look to the prior art for conventional materials. Ahlgren provides this conventional teaching showing that it is known in the art to use pleated (overlapping shirring pleats) and compressed tubular casing wherein the compression ratios are in the order of at least about 40:1 and up to about 100:1 or even greater (col. 14 lines 60-63). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the food casings of Vicik from the conventional teaching of pleated (overlapping shirring pleats) and compressed tubular casing wherein the compression ratios are in the order

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of at least about 40:1 and up to about 100:1 or even greater (col. 14 lines 60-63) motivated by the expectation of successfully practicing the invention of a intrinsically stable shirred tubular food casing that can processed on a fully automatic stuffing machine.

In regards to claim 3, Although the prior art does not disclose the casing having a sigma-5 value of to $10/10 \text{ N/mm}^2$, the claimed properties are deemed to be inherent to the structure in the prior art since the Vicik reference teaches an invention with a substantially similar structure and chemical composition as the claimed invention. Products of identical structure and composition cannot have mutually exclusive properties. The burden is on the Applicants to prove otherwise.

In regards to claim 4, Although the prior art does not disclose the casing extending in the longitudinal direction by no more than 15% when stored on smooth planar support at room temperature and 60 % rh, the claimed properties are deemed to be inherent to the structure in the prior art since the Vicik reference teaches an invention with a substantially similar structure and chemical composition as the claimed invention. Products of identical structure and composition cannot have mutually exclusive properties. The burden is on the Applicants to prove otherwise.

In regards to claim 8, Vicik discloses that the food casing contains soft synthetic polymers, such as polyamides (col. 10 lines 1-4).

In regards to claim 9, Vicik discloses that the shirred food casing is plasticized by water (col. 11 lines 3-6).

In regards to claim 10, Although the prior art does not disclose the casing having a nominal caliber of no more than 20 mm, the claimed properties are deemed to be inherent to the structure in the prior art since the Vicik reference teaches an invention with a substantially similar structure and chemical composition as the claimed invention. Products of identical structure and composition cannot have mutually exclusive properties. The burden is on the Applicants to prove otherwise.

In regards to claim 13, Vicik discloses that the food is encased by the food casing (col. 13 lines 55-57). Thus, it would be inherent that the food casing is closed at one end.

In regards to claim 15, Vicik discloses that the shirred food casing achieves the required intrinsic stability by a temporary setting of the shirring geometry and the resultant breakdown in tension of the shirred pleats and the intrinsic stability is promoted by an impregnation of water (col. 17 lines 33-55).

In regards to claim 18, Although the prior art does not disclose the casing extending in the longitudinal direction by no more than 10% when stored on smooth planar support at room temperature and 60 % rh, the claimed properties are deemed to be inherent to the structure in the prior art since the Vicik reference teaches an invention with a substantially similar structure and chemical composition as the claimed invention. Products of identical structure and composition cannot have mutually exclusive properties. The burden is on the Applicants to prove otherwise.

In regards to claim 19, It would naturally flow that the casings would bend under the effect of their own weight by no more than 20%, because the casings are stuffed

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using a automatic stuffing machine without a separate support to hold the casings upright, thus the casings would not be able to be stuffed if the casings were bent more than 20%.

In regards to claim 21, Vicik discloses that the food casing comprises water as a plasticizer (col. 17 lines 54-55).

In regards to claims 25-26, Vicik discloses a tubular biaxially stretched, heat shrinkable multilayer film food casings comprising inner and outer polyamide layers on either side of a core layer (abstract). The inner layer comprises a polyamide, the core comprises at least 60% by weight of one or more ethylene polymers having at least one functional moiety selected from the group of esters, anhydrides and carboxylic acids, and the outer layer comprises polyamide (col. 6 lines 59-64). The inner and outer layers comprises polyamide including nylon 6, nylon 66, nylon 6,12, nylon 6/12 copolymer nylon 6I/6T copolymer and nylon 6/66 copolymer (col. 10 lines 1-4). Advantageously, both the inner and outer layers may comprises the same copolyamide of nylon 6/66 (col. 10 lines 7-11). The core layer copolymers include ethylene/(meth)acrylic acid esters (col. 12 lines 20-27). The casing were shirred and placed on a core and stuffed using an automatic stuffing machine (col. 30 lines 1-6). Thus, the casing have sufficient intrinsic stability to be processed on a fully automatic stuffing machine. It would naturally flow that the casings would bend under the effect of their o25-26wn weight by no more than 20%, because the casings are stuffed using a automatic stuffing machine without a separate support to hold the casings upright, thus the casings would not be able to be stuffed if the casings were bent more than 20%. The casing has a water vapor

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transmission rate of less than 75 g/m^2 (col. 14 lines 38-42). In the case where the claimed ranges “overlap or lie inside ranges disclosed by the prior art” a *prima facie* case of obviousness exists. The water vapor permeability is essentially imparted by the synthetic polymers (col. 8 lines 49-51).

Vicik is silent with regards to the casing being compressed in a ratio of 100:1 or more with overlapping shirring pleats.

Ahlgren discloses a polyamide containing casing which are shirred for use as cook-in casings for the packaging of processed meat products, such as ham, turkey, bologna, etc (col. 1 lines 11-18). The film from which the casing is made contains a layer comprising at least two polyamides (col. 2 lines 9-11). The filing of various types of casing with viscous meat emulsion can be carried out by various automatic and semi-automatic processes (col. 14 lines 50-52). Apparatus and processes are well known in the food casing art for producing shirred, tubular casings (col. 14 lines 58-59). Such apparatus may be employed in the preparation of pleated (overlapping shirring pleats) and compressed tubular casing wherein the compression ratios are in the order of at least about 40:1 and up to about 100:1 or even greater (col. 14 lines 60-63). Using suitable food stuffing machinery, casing lengths can be stuffed with particulate or comminuted viscous material such as meat emulsion or the like, and thereafter formed into unit size lengths, using metal clips and/or heat seals (col. 14 lines 63-67).

Vicik is silent with regards to the compression ratio and the overlapping shirring pleats, therefore, it would have been necessary and thus obvious to look to the prior art for conventional materials. Ahlgren provides this conventional teaching showing that it

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is known in the art to use pleated (overlapping shirring pleats) and compressed tubular casing wherein the compression ratios are in the order of at least about 40:1 and up to about 100:1 or even greater (col. 14 lines 60-63). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the food casings of Vicik from the conventional teaching of pleated (overlapping shirring pleats) and compressed tubular casing wherein the compression ratios are in the order of at least about 40:1 and up to about 100:1 or even greater (col. 14 lines 60-63) motivated by the expectation of successfully practicing the invention of a intrinsically stable shirred tubular food casing that can processed on a fully automatic stuffing machine.

Although the prior art does not disclose the casing having a sigma-5 value of 20/020 N/mm², the claimed properties are deemed to be inherent to the structure in the prior art since the Vicik reference teaches an invention with a substantially similar structure and chemical composition as the claimed invention. Products of identical structure and composition cannot have mutually exclusive properties. The burden is on the Applicants to prove otherwise.

11. Claims 6-7, 14 and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Vicik (us 5,698,279, hereinafter "Vicik") in view of Ahlgren et al. (US 6,203,750, hereinafter "Ahlgren") in further view of Mori (US 2004/0191368, hereinafter "Mori").

In regards to claims 6-7, the food casings of the combination of Vicik and Ahlgren have previously presented. The combination of Vicik and Ahlgren is silent with regards to the food casing being single layer and the thickness of the food casing.

Mori discloses a casing film for food which is moderately permeable to water vapor and moderately impermeable to oxygen [abstract]. The casing film is formed from a single layer of polyvinylpyrrolidone and polyamide [0009]. The nylon resin is preferably nylon 6/66 copolymer [0009]. The thickness of the casing is 25 micrometers [0026].

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a single layer casing with a thickness of 25 micrometers as disclosed by Mori for the construction of the film casing of the combination of Vicik and Ahlgren motivated by the expectation of forming a single layer casing that has improved properties including high tensile rupture strength, high impact strength, high dimensional stability, and high oxygen blocking ability [0016] while maintaining a wrinkle free packed food product after refrigeration [0023].

In regards to claim 14, the combination of Vicik and Ahlgren is silent with regards to the food casing being permeable to smoke.

Mori discloses a casing film that is subjected to a smoking treatment [0001].

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the smoking treatment of Mori in the food casings of the combination

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of Vicik and Ahlgren, because smoking treatment provides a food product that has a good scent, color and flavor of smoked food [0008].

In regards to claim 24, the combination of Vicik and Ahlgren is silent with regards to the food casing containing polyvinylpyrrolidone, therefore, it would have been necessary and thus obvious to look to the prior art for conventional materials. Mori provides this conventional teaching showing that it is known in the art to use a mixture of polyvinylpyrrolidone and nylon 6/66 in food casings [0013]. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the nylon inner layer of the combination of Vicik and Ahlgren from the mixture of nylon 6/66 and polyvinylpyrrolidone motivated by the expectation of successfully practicing the invention of a smokable food casing that that has improved properties including high tensile rupture strength, high impact strength, high dimensional stability, and high oxygen blocking ability [0016] while maintaining a wrinkle free packed food product after refrigeration [0023].

12. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vicik (us 5,698,279, hereinafter "Vicik") in view of Ahlgren et al. (US 6,203,750, hereinafter "Ahlgren") in further view of Mori (US 2004/0191368, hereinafter "Mori") in further view of Vasselin et al. (US 5,616,418, hereinafter "Vasselin").

In regards to claim 23, the combination of Vicik, Ahlgren and Mori is silent with regards to the food casing containing polyether block amide, therefore, it would have

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been necessary and thus obvious to look to the prior art for conventional materials.

Vasselin provides this conventional teaching showing that it is known in the art to use a mixture of polyetheresteramide and nylon 6/66 in casings (abstract). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the nylon inner layer of the combination of Vicik, Ahlgren, and Mori from the mixture of nylon 6/66, polyvinylpyrrolidone and polyetheresteramide motivated by the expectation of successfully practicing the invention of a casing that has a food contact surface with improved antistatic properties (col. 2 lines 36-39).

Response to Arguments

13. Applicant's arguments with respect to claims 1, 2-4, 6-10, 12-15, 18-19, and 21-26 have been considered but are moot in view of the new ground(s) of rejection.

14. The applicant argues that specification provides support for a water vapor permeability of 20 to 1000 g/m² and a sigma-5 value of to 10/10 N/mm², thus the 35 USC 112, first paragraph, rejections should be withdraw. See pages 8-9 of Applicant' response to arguments.

In response, the examiner respectfully disagrees. The failure to meet the written description requirement of 25 USC 112, first paragraph, commonly arises when the claims are changed after filing to either broaden or narrow the breadth of the claim limitations, or to alter a numerical range limitation or to use claim language which is not synonymous with the terminology used in the original disclosure. See MPEP 2163.05.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELLEN S. WOOD whose telephone number is (571)270-3450. The examiner can normally be reached on M-F 730-5 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571)272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ELLEN S WOOD/
Examiner, Art Unit 1782

/Rena L. Dye/
Supervisory Patent Examiner, Art Unit 1782